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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/507,227 02/18/00 RING

M CRD 00036

EXAMINER

PM82/0321

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BURCHILL M  
ART UNIT

PAPER NUMBER

3613  
DATE MAILED:

03/21/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

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# Office Action Summary

Applicati n No.

09/507,227

Applicant(s)

RING ET AL.

Examiner

Melody M. Burch

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 18 February 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 February 2000 is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 18) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

## **DETAILED ACTION**

### ***Drawings***

1. New formal drawings are required in this application because of handwritten element numbers, illegible words, and hand drawn circuits and figures. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the Patent and Trademark Office no longer prepares new drawings.
2. Applicant is required to submit a proposed drawing correction in reply to this Office action. However, formal correction of the noted defect can be deferred until the application is allowed by the examiner.

### ***Specification***

3. The disclosure is objected to because of the following informalities: The use of first person within the specification including but not limited to "we've got a charged reservoir" in line 13 of pg. 16, "the size of *our* cylinder" in line 15 of pg. 19, etc.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claims 1-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re: claims 1, 18, and 30. It is unclear to the Examiner whether the Applicant is claiming the combination of an apparatus for automatically applying at least one brake means and a hand brake assembly or the subcombination of an apparatus for automatically applying at least one brake means and its components. The hand brake assembly is recited as functional language in the preamble but is positively recited in the body of the claim.

Re: claim 1. Claim 1 recites the limitation "said supply" in the third line from the last. There is insufficient antecedent basis for this limitation in the claim.

Re: claims 5 and 20. The phrase "a plurality of valve means" in line 4 is unclear. It is unclear to the Examiner which valve means the Applicant is referring to. Examiner suggests rewriting the claims to read --wherein said at least one valve means of said operating means includes a plurality of valve means...--.

Re: claims 9 and 22. It is unclear to the Examiner as to what the valve shifting means comprises.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-12, 14, 15, 18-24, 26, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanjo et al. '363 in view of Engle '178. Kanjo et al. show in figure 21 an apparatus engageable with a hand brake assembly for automatically

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applying at least one brake means secured to a railway vehicle with such hand brake assembly, said apparatus comprising: an operating means 300, 368, a source of fluid pressure 338, and a means for initiating the supply 318, but does not include the limitation of a portion of the operating means being engageable with at least one gear of a gear assembly disposed in a housing member of such hand brake assembly. Engle teaches in figure 2 the use of an operating means engageable with at least one gear 52 of a gear assembly 52, 23A, 23B for operating such gear assembly in a direction which will cause an application of such at least one brake means. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed the operating means of Kanjo et al. with a portion engageable to a gear assembly, as taught by Engle, depending on the mechanical structure of the specific hand brake with which the apparatus is engaged in order to transfer force from the operating means of the apparatus to the brake to effect a release or application of a hand brake. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed the hand brake assembly of Kanjo et al., as modified, with a housing in order to protect the components from dust and other forms of contamination.

Re: claims 2, 11, and 24. Kanjo et al., as modified, teach the use of a timing means in the form of a reservoir and a choke valve 311, 326 connected intermediate the operating means and source of fluid pressure. See Kanjo et al. figure 21.

Re: claim 3. Engle teaches in figure 1 the use of an overload protection device 15. It would have been obvious to one of ordinary skill in the art at the time the

invention was made to have modified the apparatus of Kanjo et al., as modified, to have included an overload protection device, as taught by Engle, in order to prevent the occurrence of excessive brake application forces which would result in damage to the apparatus.

Re: claims 4-7, 20, and 21. Kanjo et al., as modified, teach the use of a plurality of valves 362, 318, 360 with venting means connecting the source of fluid pressure to the operating means. See Kanjo et al. figure 21.

Re: claims 8, 9, and 22. Kanjo et al., as modified, teach the use of a piston member 302 connected to the source of fluid pressure via pipes or valve shifting means 342, 350. See Kanjo et al. figure 21.

Re: claims 10 and 23. Kanjo et al., as modified, teach the use of pneumatic source of fluid pressure. See Kanjo et al. in lines 9-11 of the abstract.

Re: claims 12, 14, 15, 26, and 27. Kanjo et al., as modified, teach the use of an apparatus for automatically applying and releasing or controlling the supply of pressure of railway hand brakes by responding to electrical signals. See Kanjo et al. lines 8-9 of the abstract.

Re: claim 18. Kanjo et al. show in figure 21 an apparatus apparatus engageable with a hand brake assembly for automatically applying at least one brake means secured to a railway vehicle with such hand brake assembly, said apparatus comprising: an operating means 300, 368, a source of fluid pressure 338, and a means for initiating the supply 318, a timing means in the form of a reservoir and a choke valve 311, 326 connected intermediate the operating means and source of fluid pressure, but

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does not include the limitation of a portion of the operating means being engageable with at least one gear of a gear assembly disposed in a housing member of such hand brake assembly or the limitation of an overload protection means. Engle teaches in figure 2 the use of an operating means engageable with at least one gear 52 of a gear assembly 52, 23A, 23B for operating such gear assembly in a direction which will cause an application of such at least one brake means. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed the operating means of Kanjo et al. with a portion engageable to a gear assembly, as taught by Engle, depending on the mechanical structure of the specific hand brake with which the apparatus is engaged in order to transfer force from the operating means of the apparatus to the brake to effect a release or application of a hand brake. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed the hand brake assembly of Kanjo et al., as modified, with a housing in order to protect the components from dust and other forms of contamination.

Also, Engle teaches in figure 1 the use of an overload protection device 15. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the apparatus of Kanjo et al., as modified, to have included an overload protection device, as taught by Engle, in order to prevent the occurrence of excessive brake application forces which would result in damage to the apparatus.

Re: claim 19. Kanjo et al., as modified, teach the use of at least one valve means 318 and means for venting the fluid pressure from the at least one valve means as well as a piston member 302. See Kanjo et al. figure 21.

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8. Claims 16 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanjo et al. '363 in view of Engle '178 as applied to claims 1 and 18 above, and further in view of WIPO 98/28174 (Corresponding to U.S. Patent 6186602 to Jonner et al. for column and line numbers). WIPO 98/28174 teaches the use of an overload protection means in the form of a pressure regulating means in col. 1 lines 55-56. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed the overload protection means of Kanjo et al., as modified, to have included a pressure regulating means, as taught by WIPO 98/28174, in order to provide a means to prevent the occurrence of excessive brake application forces which would result in damage to the apparatus.

9. Claims 17 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanjo et al. '363 in view of Engle '178 as applied to claims 1 and 18 above, and further in view of Budzich. Budzich teaches the use of a slip clutch to serve as an overload protection means in lines 12-14 of the abstract. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed the overload protection means of Kanjo et al., as modified, to have included a slip clutch, as taught by Budzich, in order to provide an alternate means of preventing the occurrence of excessive brake application forces which would result in damage to the apparatus.

10. Claims 13 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanjo et al. '363 in view of Engle '178 as applied to claims 1 and 18 above, and further in view of Newman, II et al. Newman, II et al. teach in figure 4 the use of a push



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button 250. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed the pressure initiating means of the apparatus of Kanjo et al., as modified, to have included a push button, as taught by Newman, II et al., in order to provide a manual means of initiating the supply of pressure.

**11.** Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barefoot in view of Kanjo et al. '363. Barefoot shows in figure 7 an apparatus for automatically applying at least one brake means secured to a railway vehicle, the apparatus comprising: a motor means 60 having a rotatable shaft 62 carrying a gear member 64 thereon, the gear member engageable with at least one gear 66 of a gear assembly, and as best shown in figure 4 a means 84, 86, 88 consisting of a microprocessor and transducers connected to the motor via 72, 76, 78, 80 for starting the motor and thereby initiating an automatic application of the at least one brake means, but does not disclose the use of the apparatus with a hand brake assembly. Kanjo et al. teach in figure 21 the use of automatic brake application apparatus associated with a hand brake assembly for a railway vehicle. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have utilized the automatic braking apparatus of Barefoot in a railway hand brake assembly, as taught by Kanjo et al., in order to effect automatic braking of a railway hand brake. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed the hand brake assembly of Barefoot, as modified, with a housing in order to protect the components from dust and other forms of contamination.

### ***Conclusion***

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12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patents: 3891277 to Cope, 5201890 to Sauer et al., 3954304 to Engle, 5586812 to Kanjo et al., 4296707 to Kennedy, 4368928 to Billingsley et al., and 4368927 to Billingsley et al. show similar inventions. U.S. Patent 2940554 to Cameron and U.S. Patent 6170619 to Sheriff et al. teach the use of gear assemblies of rail brake assemblies being disposed in housings.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melody M. Burch whose telephone number is 703-306-4618. The examiner can normally be reached on Monday-Friday (7:30 AM-4:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J. Oberleitner can be reached on 703-308-2569. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7687 for regular communications and 703-305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

mmb  
March 14, 2001

  
3/19/01  
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